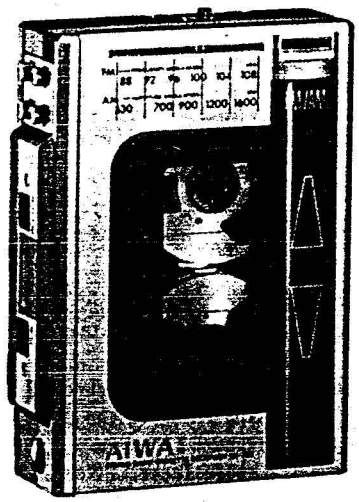
AIWA®

S/M Code No. 87-048
DATE OF ISSUE 8/1987-T

# SERVICE MANUAL

MODEL No. HS-J36, J360/J330

- STEREO RADIO CASSETTE RECORDER
- TYPE. Y
- BASIC MECHANISM : 2ME-7




## SPECIFICATIONS

**Radio frequency range:** FM: 87.5-108 MHz
AM: 530-1,605 kHz
**Track arrangement:** 4-track, 2-channel, stereo
**Frequency range:** 40 to 12,500 Hz (NORMAL tape)
40 to 16,000 Hz (METAL tape)
**Microphone:** Electret-condenser microphone
**Maximum output:** 15 mW + 15 mW (EIAJ/32Ω)
20 mW + 20 mW (EIAJ/16Ω)
**Power source:** Battery DC 3V LR-6 (SUM-3, AA, R6) x 2
Domestic AC power (using AC adaptor)
**Battery life:**
- Using manganese batteries (R6, SUM-3, AA)
  Approx. 3.5 hours (EIAJ, recording mode)
  Approx. 5.5 hours (EIAJ, 1 mW output, playback mode)
- Using alkaline batteries (LR-6, AM-3, AA)
  Approx. 7 hours (EIAJ, recording mode)
  Approx. 11 hours (EIAJ, 1 mW output, playback mode)

**Maximum dimensions:** 84.2(H) x 118(W) x 35.6(D) mm
**Weight:** 285 g (including batteries)

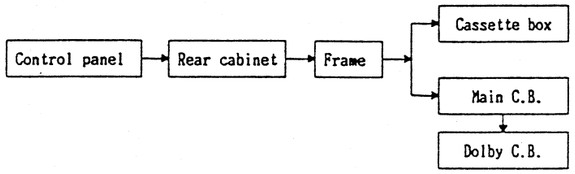
- Design and specifications are subject to change without notice.
- Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.
- Dolby and the DD symbol are trademarks of Dolby Laboratories Licensing Corporation.

AIWA CO., Ltd. Tokyo Japan

Printed in Japan

# DISASSMBLY INSTRUCTIONS

## Disassembly Procedure




### 1. Control panel

1) Remove the 2 screws (Ⓐ). (See Figure－1)

### 2. Rear cabinet

1) Remove the 4 screws (Ⓑ). (See Figure－1)
2) Remove the knob.

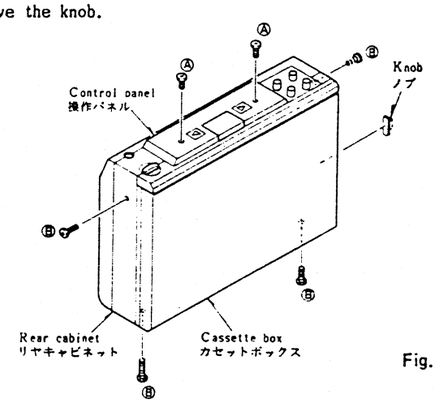



Fig. 1

### 3. Frame

1) Remove the screw (Ⓒ) and dissolder the battery terminal springs, ⊕ and ⊖. (See Figure－2)
2) Open the cassette box. (See Figure－2)
3) Unhook the top of the frame in the direction of the arrow ①. (See Figure－2)
4) Then, Remove the whole frame. (See Figure－2)

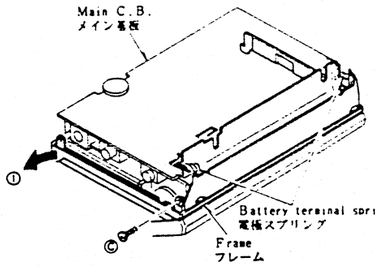



Fig. 2

### 4. Cassette box

1) Remove the 2 screws (Ⓓ). (See Figure－3)
2) Remove the cassette box by pulling the side of the cassette box in the direction of the arrow ② while pushing the side of the chassis in the direction of the arrow ①. (See Figure－3)

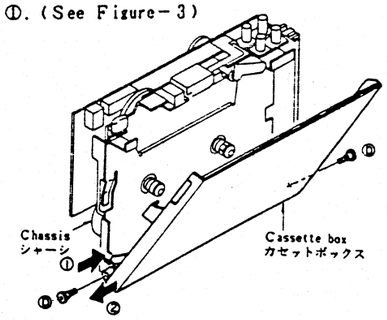



Fig. 3

### 5. Main C. B. and DOLBY C. B.

1) Remove the following screws. (See Figure－4)
   - The main circuit board mounting screws. (Ⓔ×2)
   - The governer circuit board mounting screws. (Ⓕ×2)
   - The radio chassis mounting screw. (Ⓖ×1)
   - The Dolby circuit board mounting screw. (Ⓗ×1)
2) Strech the illustrated lead-wires and raise the main circuit board in the direction of the arrow. (See Figure－4)

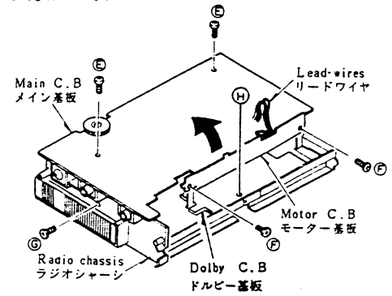



Fig. 4

### 6. Head (RPH) Replacemer

1) Remove the control panel and rear cabinet. (See Figure－1)
2) Remove the play button. (See Figure－5) (Slide it by approx. 1.5㎜ in the direction of arrow A and lift it in the direction of arrow B.)

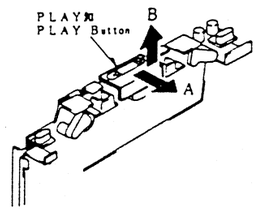



Fig. 5

### Adjustment of Tuning Poi. er

Set the tuning pointer at the high-end as illustrated. Take care not to remount the idler gear upside-down. (See Figure－6)

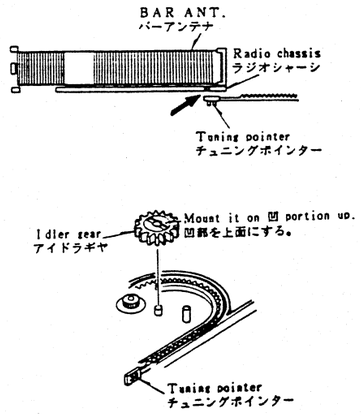



Fig. 6



# ELECTRICAL MAIN PARTS LIST

| REF. NO. | PART NO. | ORDER | DESCRIPTION |
|---|---|---|---|
| === IC === | | | |
| | 87-020-505-019 | | IC,CX20023 |
| | 87-020-460-019 | | IC,CX20111 |
| | 87-020-224-019 | | IC,NJM2063A |
| | 87-020-447-019 | | IC,TA7373F |
| | 87-020-234-019 | | IC,TA7688F(S) |
| === TRANSISTOR === | | | |
| | 87-026-258-019 | | FET,2SK302Y |
| | 87-026-233-019 | | TRANSISTOR,DTA114TK |
| | 87-026-230-019 | | TRANSISTOR,DTA114YK |
| | 87-026-213-019 | | TRANSISTOR,DTC114YK |
| | 87-026-223-019 | | TRANSISTOR,DTC143TK |
| | 87-026-224-019 | | TRANSISTOR,DTC143XK |
| | 87-026-210-019 | | TRANSISTOR,DTC144EK |
| | 89-111-625-019 | | TRANSISTOR,2SA1162GR |
| | 89-327-125-019 | | TRANSISTOR,2SC2712GR |
| | 89-333-266-019 | | TRANSISTOR,2SC3326B |
| | 89-413-284-019 | | TRANSISTOR,2SD1328T |
| === MAIN CIRCUIT BOARD SECTION === | | | |
| PCB-A | 84-448-611-010 | | MAIN CIRCUIT BOARD |
| BPF1 | 87-030-103-010 | | FILTER BPMB 8L |
| C1 | *87-010-177-019 | | CAP,CHIP S 820P SL |
| C2 | *87-010-177-019 | | CAP,CHIP S 820P SL |
| C3 | *87-010-181-019 | | CAP,CHIP S 1800P |
| C4 | *87-010-181-019 | | CAP,CHIP S 1800P |
| C5 | *87-010-189-019 | | CAP,CHIP 8200P |
| C6 | *87-010-189-019 | | CAP,CHIP 8200P |
| C7 | *87-010-194-019 | | CAP,CHIP 0.047 |
| C8 | *87-010-194-019 | | CAP,CHIP 0.047 |
| C11 | *87-010-189-019 | | CAP,CHIP 8200P |
| C12 | *87-010-189-019 | | CAP,CHIP 8200P |
| C13 | *87-010-083-019 | | CAP,TANTALUM 0.047-35V |
| C14 | *87-010-083-019 | | CAP,TANTALUM 0.047-35V |
| C15 | *87-010-174-019 | | CAP,CERA-SOL S 470P |
| C16 | *87-010-174-019 | | CAP,CHIP S 470P |
| C17 | *87-010-180-019 | | CAP,CHIP S 1500P |
| C18 | *87-010-180-019 | | CAP,CHIP S 1500P |
| C19 | *87-010-452-019 | | CAP,CHIP 1U |
| C20 | *87-010-452-019 | | CAP,CHIP 1U |
| C21 | *87-010-082-019 | | CAP,ELECT-N 220-4 |
| C22 | *87-010-082-019 | | CAP,ELECT-N 220-4 |
| C23 | *87-010-114-019 | | CAP,ELECT 47-4 |
| C25 | *87-010-114-019 | | CAP,ELECT 47-4 |
| C26 | *87-010-090-019 | | CAP,TANTALUM 4.7U |
| C27 | *87-010-501-019 | | CAP,ELECT 47-4 |
| C28 | *87-010-227-019 | | CAP,TANTALUM 47/6.3 |
| C29 | *87-010-075-019 | | CAP,ELECT 10-16 |
| C30 | *87-010-114-019 | | CAP,ELECT 47-4 |
| C31 | *87-010-114-019 | | CAP,ELECT 47-4 |
| C32 | *87-010-174-019 | | CAP,CHIP S 470P |
| C33 | *87-010-180-019 | | CAP,CHIP S 1500P |
| C34 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C35 | *87-010-090-019 | | CAP,TANTALUM 4.7U |
| C36 | *87-010-184-019 | | CAP,CHIP B 3300P(K) |
| C37 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C38 | *87-010-076-019 | | CAP,ELECT 22-6.3 |
| C39 | *87-010-114-019 | | CAP,ELECT 47-4 |
| C40 | *87-010-230-019 | | CAP,TANTALUM (489D) 10-4 |
| C41 | *87-010-082-019 | | CAP,ELECT-N 220-4 |

| REF. NO. | PART NO. | ORDER | DESCRIPTION |
|---|---|---|---|
| C42 | *87-010-195-019 | | CAP,CHIP 0.068 |
| C43 | *87-010-450-019 | | CAP,CHIP 0.47U |
| C44 | *87-010-450-019 | | CAP,CHIP 0.47U |
| C45 | *87-010-180-019 | | CAP,CHIP S 1500P |
| C46 | *87-010-227-019 | | CAP,TANTALUM 47-6.3 |
| C47 | *87-012-141-019 | | CAP,CHIP S 0.22 |
| C48 | *87-010-180-019 | | CAP,CHIP 1500P |
| C49 | *87-010-090-019 | | CAP,TANTALUM 4.7U |
| C50 | *87-010-503-019 | | CAP,ELECT 220-4 |
| C51 | *87-010-195-019 | | CAP,CHIP 0.068 |
| C52 | *87-010-180-019 | | CAP,CHIP S 1500P |
| C53 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C54 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C55 | *87-010-497-019 | | CAP,ELECT GAS 4.7-35 |
| C56 | *87-010-452-019 | | CAP,CHIP 1U |
| C57 | *87-010-174-019 | | CAP,CHIP S 470P |
| C58 | *87-010-498-019 | | CAP,ELECT GAS 10-16 |
| C59 | *87-010-194-019 | | CAP,CHIP 0.047 |
| C60 | *87-010-196-019 | | CAP,CHIP 0.1 |
| C61 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C62 | *87-010-314-019 | | CAP,CHIP 22P CH |
| C63 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C64 | *87-010-315-019 | | CAP,CHIP S 27P CH |
| C65 | *87-010-498-019 | | CAP,ELECT GAS 10-16 |
| C66 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C67 | *87-010-147-019 | | CAP,CHIP S 3P |
| C69 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C70 | *87-010-499-019 | | CAP,ELECT GAS 22-6.3 |
| C71 | *87-010-194-019 | | CAP,CHIP 0.047 |
| C72 | *87-010-196-019 | | CAP,CHIP 0.1 |
| C73 | *87-014-047-019 | | CAP,PP 390P |
| C74 | *87-010-184-019 | | CAP,CHIP B 3300P(K) |
| C75 | *87-010-194-019 | | CAP,CHIP 0.047 |
| C76 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C77 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C78 | *87-010-174-019 | | CAP,CHIP S 470P |
| C79 | *87-010-174-019 | | CAP,CHIP S 470P |
| C80 | *87-010-452-019 | | CAP,CHIP 1U |
| C81 | *87-010-452-019 | | CAP,CHIP 1U |
| C82 | *87-010-115-019 | | CAP,ELECT 100-4 |
| C83 | *87-010-194-019 | | CAP,CHIP 0.047 |
| C84 | *87-010-196-019 | | CAP,CHIP 0.01 |
| C85 | *87-010-082-019 | | CAP,ELECT-N 220-4 |
| C86 | *87-010-152-019 | | CAP,CHIP 8P(D) |
| C87 | *87-010-147-019 | | CAP,CHIP S 3P |
| C88 | *87-010-147-019 | | CAP,CHIP S 3P |
| C201 | *87-010-196-019 | | CAP,CHIP 0.1 |
| C202 | *87-010-226-019 | | CAP,TANTALUM 100-4 |
| CF1 | 87-008-284-019 | | FILTER BPFB 468J |
| CF2 | 84-400-602-019 | | FM IF KIT (SFT 10.7 MS2Z) |
| CF3 | +++ | | FM IF KIT (DISCRI 10.7 MG1Z) |
| D1 | 87-020-339-019 | | DIODE,CHIP 1SS226 |
| D2 | 87-020-027-019 | | DIODE,CHIP 1SS184 |
| D3 | 87-020-027-019 | | DIODE,CHIP 1SS184 |
| D4 | 87-020-027-019 | | DIODE,CHIP 1SS184 |
| D5 | 87-020-027-019 | | DIODE,CHIP 1SS184 |
| D6 | 87-020-125-019 | | DIODE,CHIP 1SS181 |
| D7 | 87-020-125-019 | | DIODE,CHIP 1SS181 |
| D8 | 87-020-125-019 | | DIODE,CHIP 1SS181 |
| D9 | 87-020-027-019 | | DIODE,CHIP 1SS184 |
| D10 | 87-020-027-019 | | DIODE,CHIP 1SS184 |
| D11 | 87-020-027-019 | | DIODE,CHIP 1SS184 |
| D12 | 87-020-339-019 | | DIODE,CHIP 1SS226 |
| D13 | 87-020-027-019 | | DIODE,CHIP 1SS184 |

| REF. NO. | PART NO. | ORDER | DESCRIPTION |
|---|---|---|---|
| D14 | 87-020-027-019 | | DIODE,CHIP 1SS184 |
| D15 | 87-020-520-019 | | LED TLR226(F)(OPE/BATT) |
| J1 | 87-049-767-010 | | JACK 3.5 (EXT MIC) |
| J2 | 87-049-411-019 | | JACK 3.5 G (PHONES) |
| J3 | 87-049-549-019 | | JACK DC (DC3V) |
| L1 | *87-007-193-019 | | COIL OSC BIAS |
| L2 | *87-005-259-019 | | COIL CHIP 3.3UH |
| L3 | *87-005-259-019 | | COIL CHIP 3.3UH |
| L4 | *87-003-089-019 | | COIL CHOKE 47UH |
| L5 | *87-003-089-019 | | COIL CHOKE 47UH |
| L6 | *87-005-288-019 | | COIL CHIP INDUCTOR 1.5UH |
| L7 | *87-007-179-019 | | COIL 0.15UH |
| L8 | *87-008-332-019 | | COIL AM IFT |
| L9 | *87-006-129-019 | | COIL FM ANT |
| L10 | *87-007-202-019 | | COIL FM OSC |
| L12 | *87-007-203-019 | | COIL AM OSC |
| S1 | 87-036-018-010 | | SLIDE SW (DIRECTION) |
| S2 | 87-036-018-010 | | SLIDE SW (PB/REC) |
| S3 | 87-036-020-010 | | SLIDE SW (TAPE) |
| S4 | 87-036-020-010 | | SLIDE SW (OSC, DOLBY) |
| S5 | 87-036-019-010 | | SLIDE SW (FUNCTION) |
| S6 | 87-036-024-010 | | LEAF SW (FF) |
| S7 | 87-036-052-010 | | LEAF SW (REW) |
| S9 | 87-036-021-010 | | SLIDE SW (PAUSE) |
| S10 | 87-036-017-010 | | SLIDE SW (BAND) |
| SFR1 | *87-021-944-019 | | SFR 20K |
| VC1 | *87-011-205-019 | | PVC 20P-H |
| VC2 | * +++ | | PVC 20P-H |
| VC3 | * +++ | | PVC 20P-H |
| VC4 | * +++ | | PVC 20P-H |
| TC1 | * +++ | | PVC 20P-H |
| TC2 | * +++ | | PVC 20P-H |
| TC3 | * +++ | | PVC 20P-H |
| TC4 | * +++ | | PVC 20P-H |
| VR1 | 87-021-954-019 | | VOLUME 20KA (VOLUME) |
| | | | === HEAD CIRCUIT BOARD SECTION === |
| | 86-530-630-010 | | FLEXIBLE CIRCUIT BOARD |
| RPH | 86-530-629-010 | | RPH ASSY (W/PCB-B) |
| RPH | 82-681-604-010 | | RPH |

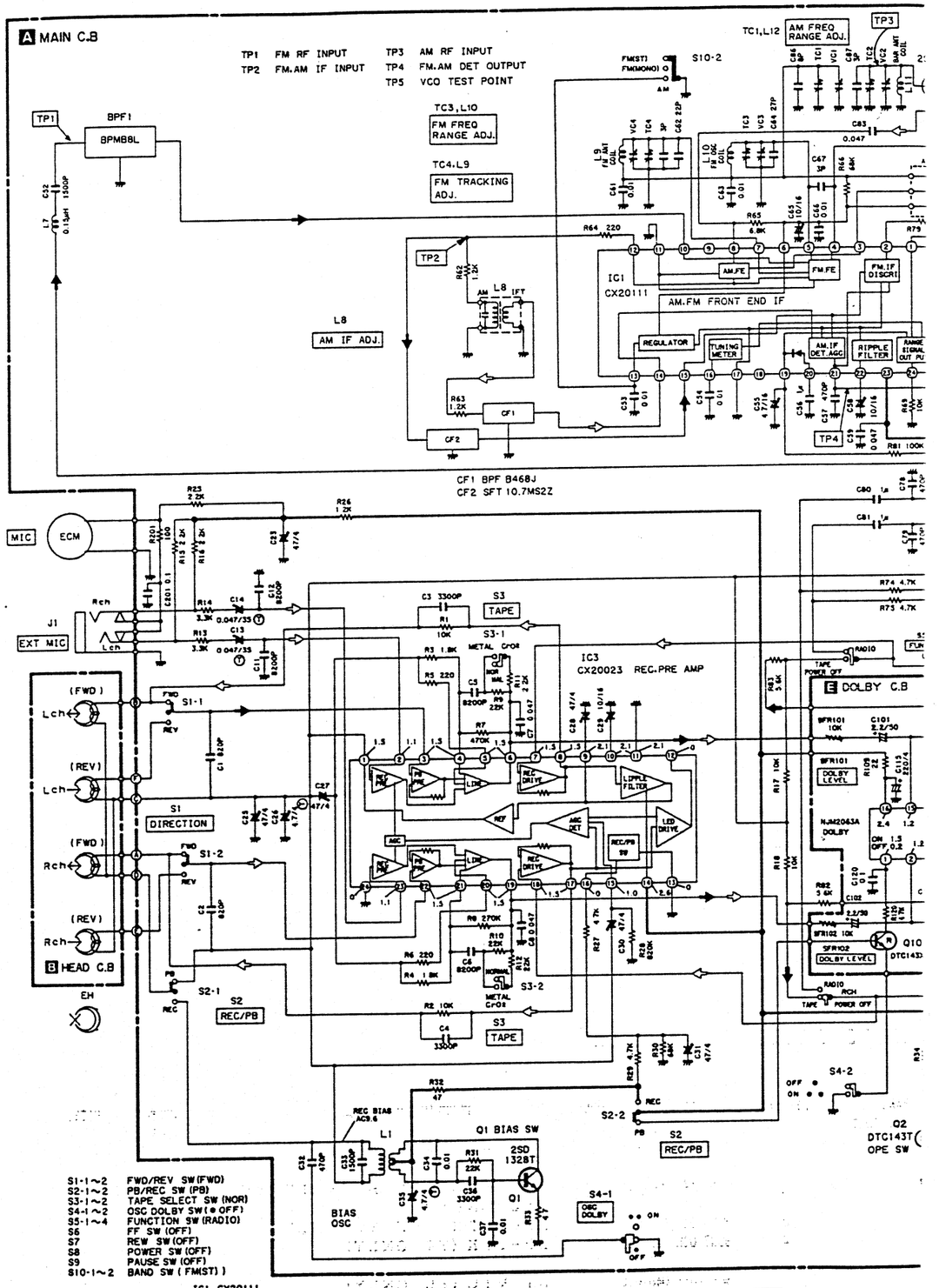
| REF. NO. | PART NO. | ORDER | DESCRIPTION |
|---|---|---|---|
| | | | === MOTOR CIRCUIT BOARD SECTION === |
| M1 | 86-530-626-019 | | MOTOR ASSY (W/PCB-C) |
| | | | === SENSOR CIRCUIT BOARD SECTION === |
| PCB-D | 86-530-623-010 | | SENSOR CIRCUIT BOARD |
| PR1 | 87-022-755-010 | | PHOTOSENSOR SP1900(0) |
| | | | === DOLBY CIRCUIT BOARD SECTION === |
| PCB-E | 84-448-602-019 | | DOLBY CIRCUIT BOARD |
| C101 | *87-010-535-019 | | CAP,ELECT 2.2-50 |
| C102 | *87-010-535-019 | | CAP,ELECT 2.2-50 |
| C103 | *87-010-188-019 | | CAP,CHIP 6800P |
| C104 | *87-010-188-019 | | CAP,CHIP 6800P |
| C105 | *87-010-194-019 | | CAP,CHIP 0.047 |
| C106 | *87-010-194-019 | | CAP,CHIP 0.047 |
| C107 | *87-010-214-019 | | CAP,CHIP TANTALUM 0.68 |
| C108 | *87-010-214-019 | | CAP,CHIP TANTALUM 0.68 |
| C109 | *87-010-193-019 | | CAP,CHIP 0.033 |
| C110 | *87-010-193-019 | | CAP,CHIP 0.033 |
| C111 | *87-010-186-019 | | CAP,CHIP 4700P |
| C112 | *87-010-186-019 | | CAP,CHIP 4700P |
| C113 | *87-010-452-019 | | CAP,CHIP 1U |
| C114 | *87-010-452-019 | | CAP,CHIP 1U |
| C115 | *87-010-464-019 | | CAP,ELECT 220-4 |
| C116 | *87-010-473-010 | | CAP,ELECT 47-4 |
| C120 | *87-010-464-019 | | CAP,CHIP 0.1 |
| SFR101 | *87-024-072-019 | | SFR 10K |
| SFR102 | *87-024-072-019 | | SFR 10K |
| | | | === MISCELLANEOUS === |
| ECM | *87-041-052-019 | | MIC ECM 60-H |
| EH | *86-530-605-010 | | EH |
| L11 | *87-006-131-019 | | COIL BAR ANTENNA |
| S8 | 86-530-622-010 | | LEAF SW (PLAY) |

## ■ ACCESSORIES/PACKAGE LIST

| PART NO. CHANGED TO | REF. NO. | PART NO. | ORDER | DESCRIPTION | COMMON MODEL | Q'TY. |
|---|---|---|---|---|---|---|
| | 1 | ★84-448-902-019 | | INSTRUCTION BOOKLET (Y) (Y, YZ, Y1 ONLY) | ※ | 1 |
| | 2 | ★84-448-903-019 | | INSTRUCTION BOOKLET (YU) (YU ONLY) | ※ | 1 |
| | 3 | ★87-048-127-019 | | HP-M12 (Y, YU, YZ ONLY) | | 1 |
| | 4 | ★87-048-138-010 | | HP-09K (Y1 ONLY) | | 1 |
| | 5 | ★87-041-048-010 | | ST MIC (YU ONLY) | | 1 |
| | 6 | ★84-448-046-010 | | CLIP BELT, N | ※ | 1 |



## SCHEMATIC DIAGRAM




| PIN NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FM (ST) | 0 | 1.9 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | — | 0.4 | 0 | 0.1 | 1.3 | 0 | 1.3 | 0 | 0 | — | 1.3 | 1.3 | 1.0 | 2.5 | 2.7 | 0 |
| FM(MONO) | 0 | 1.9 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | — | 0.4 | 0 | 0.1 | 1.3 | 0 | 1.3 | 0 | 0 | — | 1.3 | 1.3 | 1.0 | 2.4 | 2.7 | 0 |
| AM | 0 | 2.5 | 1.3 | 1.4 | 1.3 | 1.2 | 1.3 | 1.3 | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | — | 1.4 | 1.2 | 0.9 | 2.4 | 2.8 | 0 |

ORDER DESCRI

D SECTION ===

MOTOR ASSY (W

RD SECTION ===

SENSOR CIRCUI
PHOTOSENSOR S

D SECTION ===

DOLBY CIRCUIT
CAP,ELECT 2.2-
CAP,ELECT 2.2-
CAP,CHIP 6800P

CAP,CHIP 6800P
CAP,CHIP 0.047
CAP,CHIP 0.047
CAP,CHIP TANT

CAP,CHIP TANT
CAP,CHIP 0.033
CAP,CHIP 0.033
CAP,CHIP 4700P

CAP,CHIP 4700P
CAP,CHIP 1U
CAP,CHIP 1U
CAP,ELECT 220-

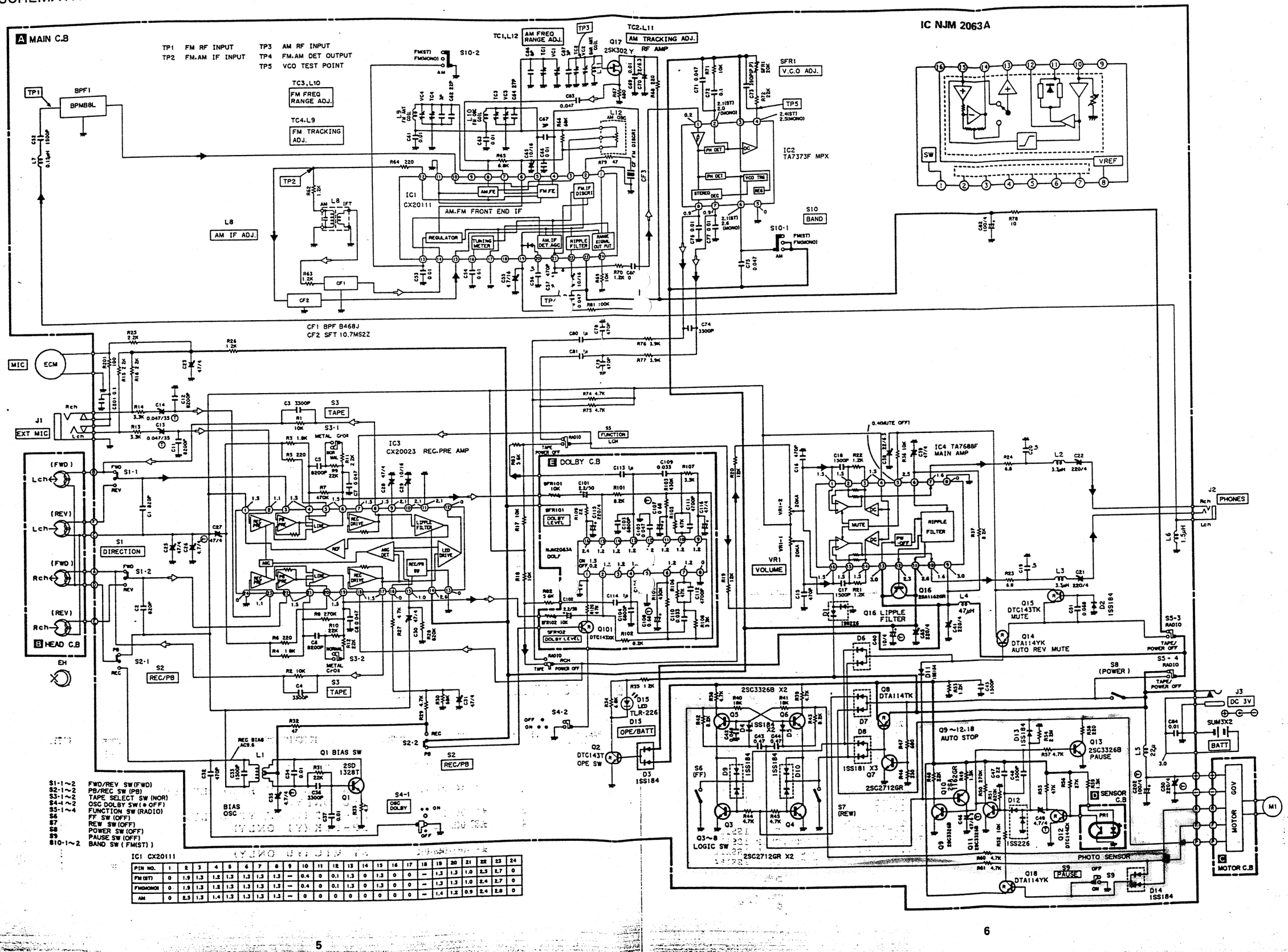
CAP,ELECT 47-4
CAP,CHIP 0.1
SFR 10K
SFR 10K

MIC ECM 60-H
EH
COIL BAR ANTEN
LEAP SW (PLAY)

COMMON Q'T
MODEL

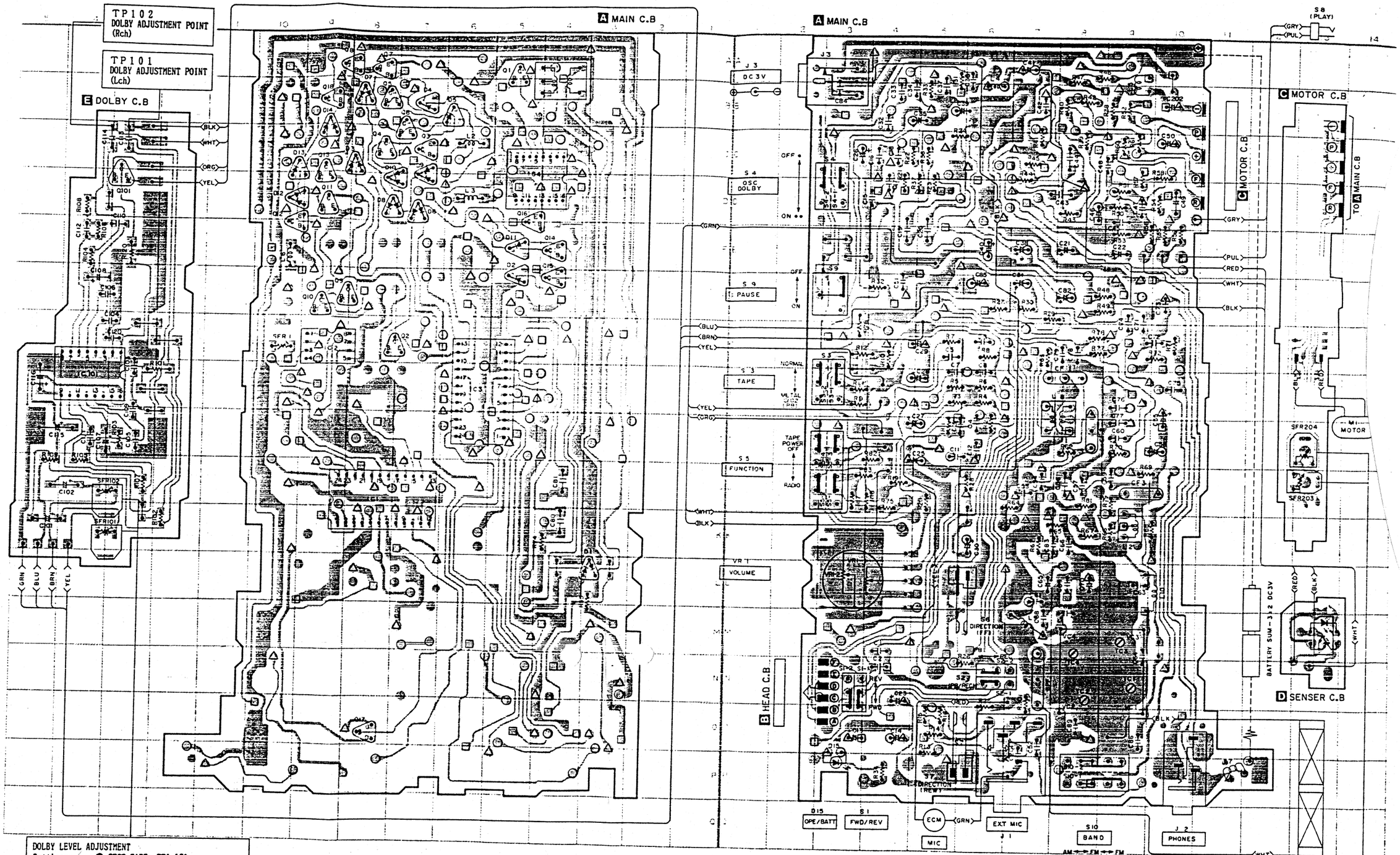
※ 1
※ 1
1
1
1
※ 1

# SCHEMATIC DIAGRAM



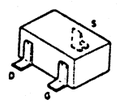

IC1 CX20111

| PIN NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FM (ST) | 0 | 1.9 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | — | 0.4 | 0 | 0.1 | 1.3 | 0 | 1.3 | 0 | 0 | — | 1.3 | 1.3 | 1.0 | 2.3 | 2.7 | 0 |
| FM MONO | 0 | 1.9 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | — | 0.4 | 0 | 0.1 | 1.3 | 0 | 1.3 | 0 | 0 | — | 1.3 | 1.3 | 1.0 | 2.4 | 2.7 | 0 |
| AM | 0 | 2.5 | 1.3 | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | — | 1.4 | 1.2 | 0.9 | 2.4 | 2.8 | 0 |

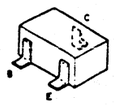



DOLBY LEVEL ADJUSTMENT
Settings:
- TEST TAPE: TTA-161
- DOLBY NR: OFF
- ADJUSTMENT POINTS: SFR201 (Lch), SFR202 (Rch)
- TEST POINTS: TP201 (Lch), TP202 (Rch)

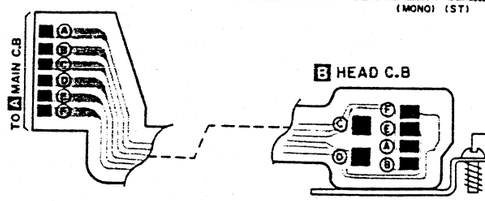
Method: Adjust SFR so that the voltage between TP201/TP202 and GND is 100mV ± 10mV.




2SK302




DTA114
DTC114
DTC143
DTC144
2SA1162
2SC2712
2SC3326
2SD1328

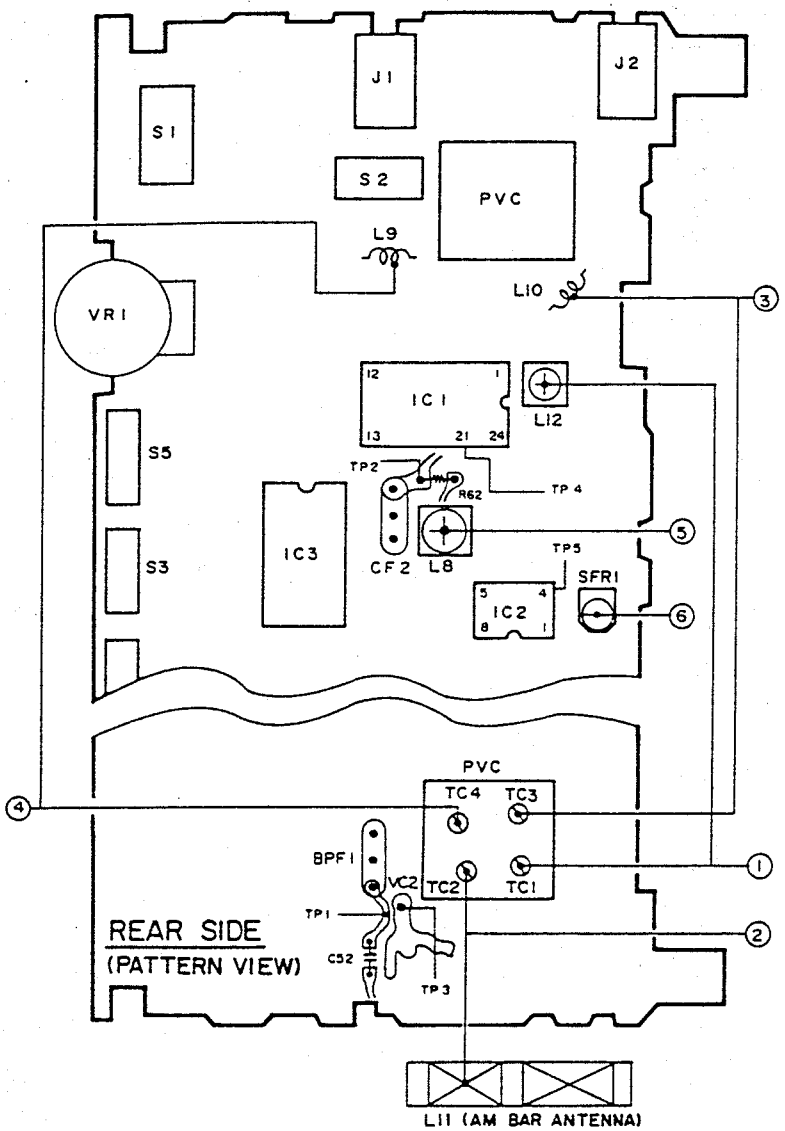



HEAD AZIMUTH ADJ.
TEST TAPE: TTA317C

TAPE SPEED ADJ.
TEST TAPE: TTA-111S
FWD PLAY: SFR201
REV PLAY: SFR202

# ADJUSTMENT

## PARTS LOCATION VIEW




① AM FREQ. RANGE ADJUSTMENT
L12 ····· 520±$^{5}_{1}$kHz
TC1 ····· 1650±20kHz

② AM TRACKING ADJUSTMENT
L11 ····· 600kHz
TC2 ····· 1400kHz

③ FM FREQ. RANGE ADJUSTMENT
L10 ····· 87.4±$^{0.2}_{0.8}$MHz
TC3 ····· 108.3±$^{0.2}_{0.8}$MHz

④ FM TRACKING ADJUSTMENT
L9 ····· 88MHz
TC4 ····· 108MHz

⑤ AM IF ADJUSTMENT
L8 ····· 468±2.5kHz

⑥ V. C. O ADJUSTMENT
SFR1 ····· 76kHz±40Hz

The Dolby level adjustment is described on the WIRING DIAGRAM.

TP1 FM RF INPUT
TP2 AM IF INPUT
TP3 AM RF INPUT
TP4 FM. AM DET OUTPUT
TP5 V. C. O TEST POINT
TP101 DOLBY TEST POINT (Lch)
TP102 DOLBY TEST POINT (Rch)

## PRACTICAL SERVICE FIGURE

<RADIO SECTION>

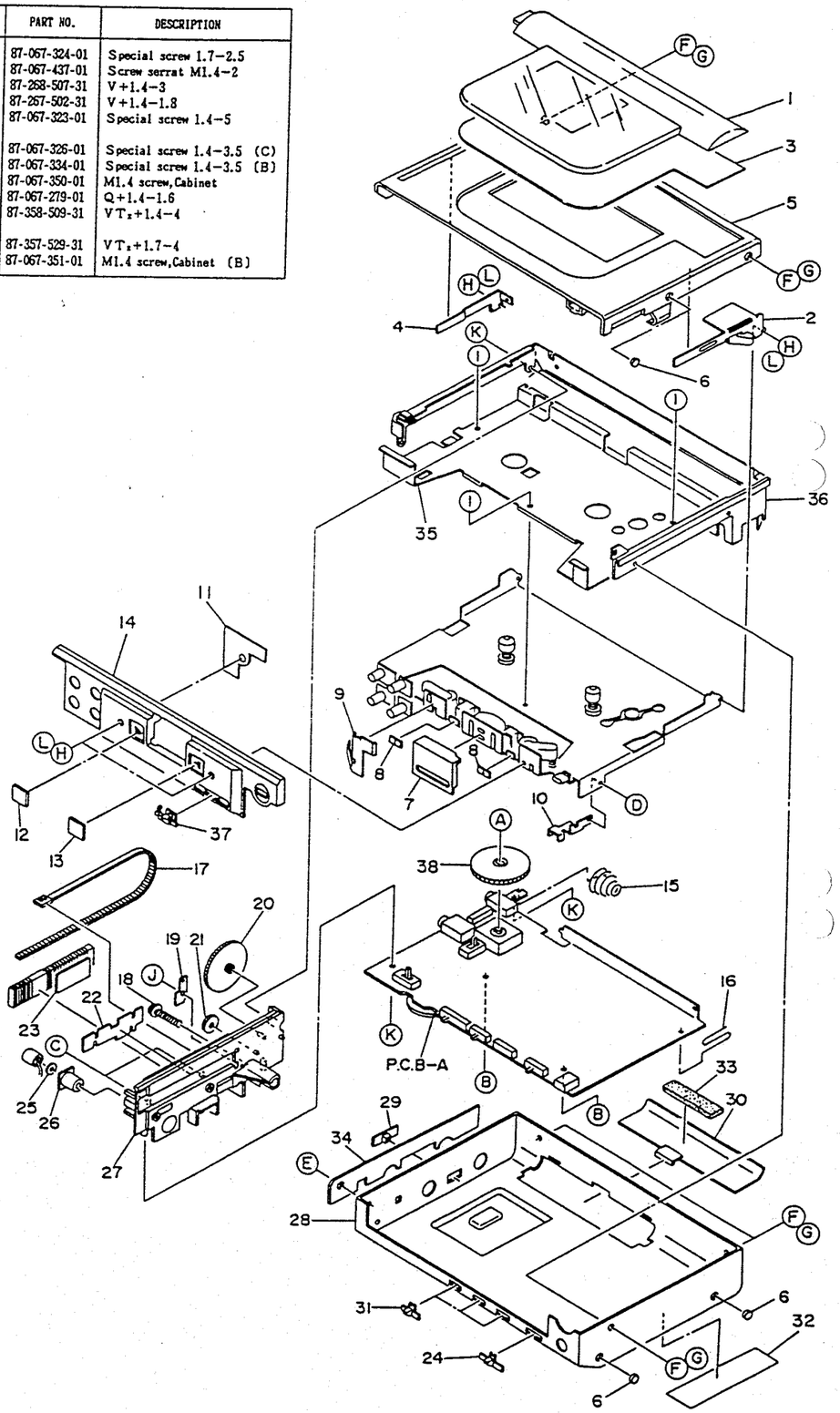
| | |
|---|---|
| Sensitivity: | |
| (IHF, THD 3%) | FM 15±5dB (at 96MHz) |
| (S/N 10dB) | AM Less than 52dB(at 1000kHz) |
| Intermediate frequency: | FM 10.7±0.3MHz |
| | AM 468kHz±3.5kHz |
| FM stereo separation: | 17±3dB (1kHz) |

<TAPE SECTION>

| | |
|---|---|
| Record bias frequency: | 47kHz |
| Erasing ratio: | More than 50dB |
| Wow & flutter: | Less than 0.45% (RMS) |
| Distortion: | Less than 3% (PB) |
| | Less than 10% (REC) |
| Signal noise ratio: | 51±3dB (PB) |
| | 35±$^{1}_{3}$dB (REC) |
| Noise level: | Less than 5mV (DC MAX PB) |
| | Less than 25mV (DC MAX REC) |
| Pinch roller pressure: | 160±10g |
| Take up torque: | 25～35g-cm (FWD) |
| | 25～40g-cm (REV) |
| FF/rewind torque: | 60～120g-cm |
| Back tension: | 1.5～3g-cm |

# EXPLODED VIEW－1

| REF.NO. | PART NO. | DESCRIPTION |
|---|---|---|
| A | 87-067-324-01 | Special screw 1.7－2.5 |
| B | 87-067-437-01 | Screw serrat M1.4－2 |
| C | 87-268-507-31 | V＋1.4－3 |
| D | 87-267-502-31 | V＋1.4－1.8 |
| E | 87-067-323-01 | Special screw 1.4－5 |
| F | 87-067-326-01 | Special screw 1.4－3.5 (C) |
| G | 87-067-334-01 | Special screw 1.4－3.5 (B) |
| H | 87-067-350-01 | M1.4 screw,Cabinet |
| I | 87-067-279-01 | Q＋1.4－1.6 |
| J | 87-358-509-31 | VT₂＋1.4－4 |
| K | 87-357-529-31 | VT₁＋1.7－4 |
| L | 87-067-351-01 | M1.4 screw,Cabinet (B) |






# MECHANICAL PARTS LIST

| PART NO. CHANGED TO | REF. NO. | PART NO. | ORDER | DESCRIPTION | COMMON MODEL | Q'TY |
|---|---|---|---|---|---|---|
| | 1-1 | 84-448-006-019 | | WINDOW, CASSETTE | ※ | 1 |
| | 1-2 | ★84-425-206-010 | | HOLDER B ASSY | HS－J35 | 1 |
| | 1-3 | ★84-448-201-019 | | ADHESIVE, WINDOW | ※ | 1 |
| | 1-4 | ★84-425-205-010 | | HOLDER A | HS－J35 | 1 |
| | 1-5 | 84-448-004-019 | | CASSETTE LID ASSY (HS－J36) (B) | ※ | 1 |
| | 1-5 | 84-448-020-019 | | CASSETTE LID ASSY (HS－J360) (B) | ※ | 1 |
| | 1-5 | 84-448-013-019 | | CASSETTE LID ASSY (HS－J36) (S) | ※ | 1 |
| | 1-5 | 84-448-023-019 | | CASSETTE LID ASSY (HS－J330) (S) | ※ | 1 |
| | 1-5 | 84-448-017-019 | | CASSETTE LID ASSY (HS－J36) (WR) | ※ | 1 |
| | 1-6 | ★84-448-010-019 | | FOOT, RUBBER | ※ | 3 |
| | 1-7 | 86-530-026-010 | | PUSH－BUTTON, PLAY (B) | | 1 |
| | 1-7 | ★86-530-001-010 | | PUSH－BUTTON, PLAY (S,WR) | | 1 |
| | 1-8 | ★84-420-011-010 | | SEAL DIRECTION | | 2 |
| | 1-9 | --- | | GUIDE, HEAD WIRE | | 1 |
| | 1-10 | --- | | HOLDER DC JACK | | 1 |
| | 1-11 | ★84-448-606-010 | | SHIELD SHEET FPC | ※ | 1 |
| | 1-12 | ★84-448-037-010 | | WINDOW, DIRECTION REV | ※ | 1 |
| | 1-13 | ★84-448-036-010 | | WINDOW, DIRECTION FWD | ※ | 1 |
| | 1-14 | ★84-448-038-010 | | PANEL, CONTROL (B) | ※ | 1 |
| | 1-14 | ★84-448-035-010 | | PANEL, CONTROL (S,WR) | ※ | 1 |
| | 1-15 | ★84-425-203-019 | | BATTERY, TERMINAL N | HS－J35 | 1 |
| | 1-16 | ★84-425-202-019 | | BATTERY, TERMINAL P | HS－J35 | 1 |
| | 1-17 | ★84-425-009-219 | | POINTER, TU | HS－J35 | 1 |
| | 1-18 | ★84-425-215-119 | | TU SHAFT, WORM | HS－J35 | 1 |
| | 1-19 | ★84-425-212-110 | | LEVER WORM, GEAR HOLD | HS－J35 | 1 |
| | 1-20 | ★84-448-042-019 | | KNOB, TU | ※ | 1 |
| | 1-21 | 84-425-211-019 | | GEAR, IDLER | HS－J35 | 1 |
| | 1-22 | --- | | PVC PLATE | | 1 |
| | 1-23 | --- | | CUSHION, ANTENNA | | 1 |
| | 1-24 | ★84-448-040-019 | | SLIDE KNOB, SELECT B | ※ | 1 |
| | 1-25 | ★82-690-240-019 | | RUBBER SPACER 5－2.1－1 | | 1 |
| | 1-26 | --- | | HOLDER, ECM | | 1 |
| | 1-27 | --- | | CHASSIS, TU | | 1 |
| | 1-28 | ★84-448-001-019 | | CABINET, REAR (B) | ※ | 1 |
| | 1-28 | ★84-448-011-019 | | CABINET, REAR (S) | ※ | 1 |
| | 1-28 | ★84-448-015-019 | | CABINET, REAR (WR) | ※ | 1 |
| | 1-29 | ★84-425-029-119 | | SLIDE KNOB, C | HS－J35 | 1 |
| | 1-30 | 84-447-023-019 | | LID, BATTERY (B) | | 1 |
| | 1-30 | 84-447-024-019 | | LID, BATTERY (S) | | 1 |
| | 1-30 | 84-447-025-019 | | LID, BATTERY (WR) | | 1 |
| | 1-31 | ★84-448-039-019 | | SLIDE KNOB, SELECT | ※ | 3 |
| | 1-32 | --- | | LABEL, SPEC | | 1 |
| | 1-33 | --- | | CUSHION, M | | 1 |
| | 1-34 | ★84-448-008-010 | | NAME PLATE, SIDE | ※ | 1 |
| | 1-35 | ★84-448-009-019 | | PANEL, CASSETTE | ※ | 1 |
| | 1-36 | ★84-448-041-019 | | FRAME, CASSETTE (B) | ※ | 1 |
| | 1-36 | ★84-425-003-019 | | FRAME, CASSETTE (S, WR) | HS－J35 | 1 |
| | 1-37 | ★84-417-043-210 | | SLIDE KNOB, DIRECTION | | 1 |
| | 1-38 | ★84-425-214-019 | | DRUM, TU | HS－J35 | 1 |

See the 2ME-7 Mechanism Guide (Supplement of Service Manual) for the exploded views.
The following parts have been changed for this model.

## ALTERATION PARTS LIST

| PART NO. CHANGED TO | REF. NO. | PART NO. | ORDER | DESCRIPTION | COMMON MODEL | Q'TY |
|---|---|---|---|---|---|---|
| | 1-2 | ★86-530-393-119 | | T-SPRING, PINCH LEVER A (J) | | 1 |
| | 1-5 | ★86-530-394-019 | | T-SPRING, PINCH LEVER B (J) | | 1 |
| | 1-8 | ★86-511-343-010 | | REEL PHASER R | | 1 |
| | 1-9 | ★82-639-319-110 | | REEL TABLE STOPPER | | 1 |
| | 2-4 | ★86-530-036-010 | | PUSH-BUTTON, EJECT (R6NB) | | 1 |
| | 2-4 | ★86-530-025-010 | | PUSH-BUTTON, EJECT (R6N) | | 1 |
| | NOTE) 2-8 | ★86-530-311-010 | | GEAR I | | 2 |
| | 2-14 | ★86-530-329-410 | | GUIDE J, TAPE | | 1 |
| | 2-22 | ★86-530-389-010 | | LEVER F, REVERSE | | 1 |
| | 2-34 | ★86-530-035-010 | | PUSH-BUTTON, REC (R6NB) | | 1 |
| | 2-34 | ★86-530-024-010 | | PUSH-BUTTON, REC (R6N) | | 1 |
| | 2-41 | ★86-530-032-010 | | PUSH-BUTTON, FF (R6NB) | | 1 |
| | 2-41 | ★86-530-021-010 | | PUSH-BUTTON, FF (R6N) | | 1 |
| | 2-45 | ★86-530-033-010 | | PUSH-BUTTON, REW (R6NB) | | 1 |
| | 2-45 | ★86-530-022-010 | | PUSH-BUTTON, REW (R6N) | | 1 |
| | 2-48 | ★86-530-034-010 | | PUSH-BUTTON, STOP (R6NB) | | 1 |
| | 2-48 | ★86-530-023-010 | | PUSH-BUTTON, STOP (R6N) | | |

The following REF. NOS. are not used in this model.
1-14, 1-17
2-9, 2-28, 2-52, 2-53
NOTE) 2-8, 2-9.....Gear K is removed and 2 gears I are used.

## ADDITIONAL PARTS LIST

| PART NO. CHANGED TO | REF. NO. | PART NO. | ORDER | DESCRIPTION | COMMON MODEL | Q'TY |
|---|---|---|---|---|---|---|
| | 2-57 | ★86-530-438-010 | | E-SPRING, REC BLOCKING LEVER AK | | 1 |
| | 2-58 | ★84-425-219-010 | | LEVER, SWITCH FF | | 1 |
| | 2-59 | ★84-425-220-010 | | LEVER, SWITCH REW | | 1 |

## EXPLODED VIEW ( ADDITIONAL PARTS )